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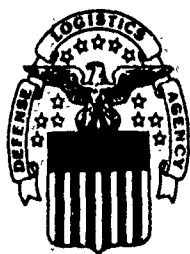
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DLA-91-P00128

**Marginal Cost of Soliciting
Automated Data Processing
Equipment**

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OPERATIONS RESEARCH AND ECONOMIC ANALYSIS OFFICE



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DEPARTMENT OF DEFENSE

DEFENSE LOGISTICS AGENCY

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Marginal Cost of Soliciting Automated Data Processing Equipment

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DEPARTMENT OF DEFENSE

DEFENSE LOGISTICS AGENCY

OPERATIONS RESEARCH AND ECONOMIC ANALYSIS OFFICE

CAMERON STATION,

ALEXANDRIA, VIRGINIA 22304-6100

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FOREWORD

The Defense Logistics Agency Automated Data Processing (ADP) Contracting Office (DLA-DACO) is responsible for procuring ADP equipment which can be acquired in two ways: (1) through the General Services Administration (GSA) ADP schedule; or (2) off-schedule through normal solicitation channels by way of a Request for Proposal (RFP). ADP equipment ordered via RFP has an administrative cost added for comparison purposes to the vendor's quote that includes the additional quantifiable costs of going off-schedule. This is permitted under the Federal Information Resources Management Regulation and provides for a more realistic comparison between an off-schedule bid and the GSA schedule price. In December 1985, DACO estimated this marginal cost to be \$40,000 and has been adding this cost to vendor's bids for comparison purposes. On 16 February 1990 the General Services Administration Board of Contract Appeals judged the \$40,000 amount to be excessive. DACO requested the DLA Operations Research and Economic Analysis Management Support Office (DLA-DORO) to perform a study to determine the marginal cost which accurately reflects the additional cost of soliciting via an RFP instead of ordering from the GSA ADP schedule.

The cost of soliciting via an RFP was determined to be \$19,000 more than the cost of ordering from the GSA schedule for ADP items costing between \$25,000 and \$100,000. For RFP acquisitions between \$100,000 and \$300,000, the marginal cost was \$28,000. These marginal costs are deemed conservative due to the exclusion of other factors. Factors not included are the cost of other DLA organizations involved with the solicitation process and the unquantifiable productivity cost associated with an ADP equipment delay. In addition, marginal costs should be recalculated each year using an average DACO salary comprised of section chiefs and below.

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Christine L. Gallo
CHRISTINE L. GALLO
Acting Assistant Director
Policy and Plans



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I. INTRODUCTION

A. Background

The Defense Logistics Agency Automated Data Processing (ADP) Contracting Office (DLA-DACO) is responsible for procuring ADP equipment within DLA. ADP equipment can be acquired via two ways: (1) through the General Services Administration (GSA) nonmandatory ADP schedule, which is referred to as the GSA schedule; or (2) off-schedule through normal solicitation channels by way of a Request for Proposal (RFP).

The schedule lists equipment for which GSA has already negotiated an acceptable price with a contractor. Procuring items by way of the GSA schedule decreases administrative overhead and time since much of the contractual paper work has previously been accomplished.

ADP equipment ordered via RFP has an administrative cost added for comparison purposes to the vendor's quote that includes the additional quantifiable costs of going off-schedule. This is permitted under the Federal Information Resources Management Regulation and provides for a more realistic comparison between an off-schedule bid and the GSA schedule price. In December 1985, DACO estimated this marginal cost to be \$40,000 and has been adding this cost to vendors' bids for comparison purposes.

On 16 February 1990 the Board of Contract Appeals judged the \$40,000 amount to be excessive. DACO has asked the DLA Operations Research and Economic Analysis Management Support Office (DORO) to reexamine the marginal cost.

B. Purpose. The purpose of this study was to determine the marginal cost which accurately reflects the additional cost of developing an RFP instead of ordering from the GSA ADP schedule.

C. Objectives. The specific objectives of the study were to:

1. Determine the marginal cost of procuring ADP equipment off-schedule via RFP.

2. Ensure the methodology used to determine the marginal cost is able to withstand legal scrutiny.

D. Scope

1. This study was limited to the DACO processes, or steps, from RFP development through contract award. The cost of administering an awarded contract was not considered.

2. The study only reviewed those types of solicitations which could be ordered on the GSA schedule. This ensured that both RFPs and GSA orders were for similar types of ADP equipment.

3. The costs associated with DACO management (branch chief and up) were not considered. This study assumed both branch and division chiefs' time would be the same regardless of the mix of RFPs and GSA orders.

4. The time delay of obtaining ADP equipment through solicitation (RFP) was not considered in the cost.

E. Limitations

1. The marginal cost should not be used for ADP acquisitions over \$300,000 or under \$25,000. The intent of this study was to compare RFP development costs to GSA order preparation costs and most items on the GSA schedule are less than \$300,000. In addition, there was negligible time difference between acquiring ADP items by RFP and GSA order for acquisitions under \$25,000.

2. The marginal cost developed in this study was the difference in cost between developing an RFP versus writing a GSA order and should not be construed as the total cost to the government of ordering ADP items.

II. CONCLUSION. The marginal cost of developing an RFP is \$19,000 more than the cost to generate a GSA schedule order for ADP items costing between \$25,000 and \$100,000. Also, the marginal cost is \$28,000 for RFP acquisitions between \$100,000 and \$300,000. These marginal costs are conservative because the values of ADP equipment delay and other organizations' time were ignored. Comparison of four different cost methods showed little variance in the marginal cost and averaging current DACO salaries (GM-14 and down) provided a simple way of calculating the marginal cost without sacrificing accuracy.

III. RECOMMENDATIONS

A. That a marginal cost of \$19,000 be added to off-schedule vendor bids when comparing with the GSA schedule price for ADP acquisitions between \$25,000 and \$100,000.

B. That a marginal cost of \$28,000 be added to off-schedule vendor bids when comparing with the GSA schedule price for ADP acquisitions between \$100,000 and \$300,000.

C. That marginal costs be recalculated each year using an average DACO salary of section chiefs and down.

IV. BENEFITS. The benefits are as follows:

A. Quantifiable. The highest possible savings using marginal costs in the evaluation process are \$710,000 a year. This assumes a yearly workload of 100 GSA orders per year and that if marginal costs weren't used then all GSA ADP orders would be procured off-schedule. Table 1 illustrates the savings.

Table 1

HIGHEST POSSIBLE SAVINGS USING MARGINAL COST

<u>Procurement Cost</u>	<u>Number Orders</u>	<u>Marginal Cost</u>	<u>Savings (\$)</u>
\$0K - \$25K	64	\$0	\$0
\$25K - \$100K	30	\$19,000	\$570,000
\$100K - \$300K	5	\$28,000	\$140,000
\$300K - +	1	\$0	\$0
Total			\$710,000

B. Nonquantifiable

1. Using a marginal cost results in a truer comparison between a vendor's bid and the GSA schedule price.

2. Also, the use of marginal costs encourages the government to save processing and delivery time by ordering through the GSA schedule, which is what the GSA schedule was designed to do. Acquiring ADP equipment under \$300,000 through solicitation takes at least 90 days versus 15 to 30 days for a GSA schedule order.

V. METHODOLOGY

A. Approach. The methodology used to estimate the marginal cost was dictated by the lack of available data on RFP and GSA type acquisitions. Specifically, the lack of information on how much time is spent by DACO personnel on ADP acquisitions. Two options were considered for determining the amount of time expended by DACO personnel on ADP acquisitions: (1) keep time sheets on each acquisition, or (2) have DACO personnel estimate their time expended. Keeping time sheets would require personnel to meticulously account for all efforts expended on different acquisitions and would take at least a year to collect enough information to be usable. Option 2 was chosen since it would take less time to estimate the hours expended, and with proper validation the information obtained would be acceptable for estimating the marginal cost.

B. Acquisition Dollar Ranges. Acquisitions were divided into four dollar levels: under \$25K, \$25K to \$100K, \$100K to \$300K, and over \$300K. Marginal costs were developed for two acquisition levels: \$25K to \$100K and \$100K to \$300K. A marginal cost was not developed for the less than \$25K range since the administrative work involved is approximately the same regardless if the ADP requirement is satisfied on or off-schedule (i.e., RFP workload equals GSA workload). Also, a marginal cost was not developed for ADP items over \$300K because there are very few GSA orders written in this dollar range. Most ADP items costing over \$300K are beyond the scope of the GSA ADP schedule.

C. Steps Included. The marginal cost was based on the number of hours spent soliciting a contract less the hours spent generating a GSA schedule order. An existing milestone chart provided by DACO was used to define the steps performed in soliciting a contract from which an estimate of the number of hours spent was obtained. These steps included the time from initial requirements definition to contract award and are listed in Appendix A. Ordering from the GSA ADP schedule did not require as many steps as an RFP (less than half). Some of the steps require the same number of staff-hours regardless if it was performed for an RFP or GSA type acquisition. The difference in hours would be zero and contribute nothing to the marginal cost. Thus any duplicative effort was taken into consideration and not factored into the marginal cost.

D. Hourly Survey. A modified Delphi approach was used to collect hourly estimates of the steps performed by DACO personnel. A survey was sent to DACO personnel asking how many hours were spent for a given step. This initial survey was completed individually, thereby minimizing peer and supervisory pressure. From the surveys an average number of hours for each step was determined. The results of the survey were briefed to each DACO branch. The branch was then asked if they agreed with the survey averages. If not, then a group consensus was solicited.

E. Assumptions. The assumptions made in this study were:

1. Branch chiefs and above have the same workload regardless of the mix of RFP and GSA orders.

2. An acceleration factor of 18 percent was used to include sick leave, vacation leave, and holiday time into the cost figure. This figure was specified for use in DLA cost studies in DLA Manual 7041.1, Economic Analysis, May 1985, Chapter 7, page 7-3.

3. A fringe benefit factor of 29.55 percent was used to cover overhead and other indirect costs shouldered by the government. This figure is updated over time and was last published in a DLA-L IOM dated 23 March 1990.

4. Each acquisition step is performed by only one person per DACO branch. This is a conservative assumption since several steps require more than one individual from each branch (i.e., RFP Review and Contract Review Committee steps).

F. Cost Methods

1. Four different methods were evaluated for calculating the marginal cost. Each cost method converted an average salary to an hourly rate which was multiplied by the difference in hours between soliciting a contract and generating a GSA order.

a. Cost Method 1 - DACO Average. This method grouped all DACO personnel into one group, excluding branch chiefs and above, to come up with a DACO average salary.

b. Cost Method 2 - Branch Average. Here, an average salary was calculated for each DACO branch (branch chiefs excluded).

c. Cost Method 3 - Grade Average. DACO personnel were split into three salary grade ranges: clerks (GS-5), specialists (GS-7 to GS-14), and section chief (GM-14). An average salary was calculated for each of these three ranges.

d. Cost Method 4 - Branch and Grade Average. DACO personnel were divided into nine categories by branch and grade ranges. An average salary was calculated for each category.

2. Cost method 1 is a modified version of the average salary used by DACO in their original marginal cost study. In the original study the average DACO salary was based on all personnel. And it was this overall average DACO salary which the GSA Board of Contract Appeals questioned as being too gross an approximation for estimating a marginal cost. In this study the average DACO salary excludes branch chiefs and above, for reasons stated in section V.E.1., and is only based on section chiefs and their corresponding personnel. Cost method 1 was compared against the other, more detailed, cost methods to assess if greater detail would generate any significant difference in the marginal cost. As it turned out no significant difference occurred between the four cost methods. A discussion of the cost method results start in paragraph VI.C.

VI. ANALYSIS

A. Survey Results. Initially, DACO personnel were individually surveyed for the number of hours spent on each step in the acquisition process. These individual survey results were compiled by branch and grade ranges. There are three DACO branches: Contract Operations (DACO-P), Acquisition Management (DACO-A), and Policy, Review and Requirements Analysis (DACO-R). The statistical results were presented to each branch for group feedback. The group feedback hours for each step were totaled and are listed in Table 2. The survey results represent the total number of hours spent developing an RFP solicitation and GSA order.

Table 2

HOURS SPENT BY DACO PERSONNEL ON ACQUISITIONS

(hours)					
<u>Grade</u>	<u>DACO Branch</u>	<u>\$25K - \$100K</u>		<u>\$100K - \$300K</u>	
		<u>RFP</u>	<u>GSA</u>	<u>RFP</u>	<u>GSA</u>
Clerk	P	128	31	128	31
	A	0	0	0	0
	R	0	0	0	0
Specialist	P	384	61	524	87
	A	235	127	761	334
	R	68	5	180	14
Section Chief	P	65	11	149	14
	A	0	0	0	0
	R	4	1	25	5

B. Validation of Hours. The survey hours were validated in two ways: (1) the hours per week required to complete an average annual acquisition workload, as determined by the survey results, were compared with a 40 hour work-week. If the weekly rate seemed unreasonable then the survey results were readdressed; and (2) confirmation of the hours by DACO branch chiefs. If the branch chiefs thought the number of hours required by their branches to solicit a contract or write a GSA order were erroneous then the survey results were readdressed. The hours per week was the primary way of validating the survey hours, but branch chiefs were consulted since they have a broader perspective and greater familiarity of each acquisition step.

1. Weekly Workload. DACO on average completes 118 ADP acquisitions per year (18 RFP solicitations and 100 GSA orders). These acquisitions breakout as follows: 64 percent fall below \$25,000, 30 percent are between \$25K and \$100K, 5 percent are between \$100K and \$300K, and 1 percent are above \$300K. The survey provided the number of hours DACO personnel spend on acquisitions in the \$25K to \$100K and \$100 to \$300K range. For the purpose of this validity check, acquisitions below \$25K were assumed to require the same amount of time (survey hours) to solicit as the \$25K to \$100K acquisitions. Also, acquisitions above \$300K were assumed to require the same solicitation hours as the \$100K to \$300K acquisitions. Then by using an average number of people per branch, weekly rates of hours per week per person were calculated. The results are listed in Table 3.

Table 3

HOURS PER WEEK TO ACCOMPLISH RFP AND GSA WORKLOAD

<u>Grade</u>	<u>People in DACO Branch</u>		<u>Hours per week per person</u>		
			<u>\$25K - \$100K</u>	<u>\$100K - 300K</u>	<u>Total</u>
Clerk	P	3	33	2	35
	A	1	0	0	0
	R	3	0	0	0
Specialist	P	17	14	1	15
	A	11	28	5	33
	R	10	4	1	5
Section Chief	P	3	14	2	16
	A	3	0	0	0
	R	3	1	0	1

Note that the hours in Table 3 do not include time for administering contracts. According to DACO branch chiefs about 50 percent of DACO's time is spent administering contracts. Therefore, the weekly rate in Table 3 should be less than 20 hours a week. If, however, more than 20 hours were required then the survey times were probably too high. Based on the survey results RFP and GSA workloads can be completed in less than 20 hours a week, except for DACO-P clerks and DACO-A specialists, who required 35 and 33 hours per week per person, respectively. The branch chief of DACO-P was consulted on the clerks' hours and the 35 hours per week per person were not considered high since most of a clerk's time is spent in support of RFP solicitation and not contract administration. However, DACO-A team chiefs considered the

specialists' time high. After they reviewed the hourly estimates in Table 2, the section chiefs estimated 240 total hours for an RFP solicitation and 40 total hours for a GSA order for both acquisition dollar ranges. This adjustment is included in Table 4. These new times equate to 15 hours per week for DACO-A specialists.

2. Branch Chiefs' Confirmation. For simplification, the hours listed in Table 1 were rounded to the nearest multiple of a 40 hour week as shown in Table 4. DACO branch chiefs reviewed the hours in Table 4 and agreed the hours were reasonable and justifiable.

Table 4

ROUNDED SURVEY RESULTS

		(hours)			
<u>Grade</u>	<u>Branch</u>	<u>\$25K - \$100K</u>		<u>\$100K - \$300K</u>	
		<u>RFP</u>	<u>GSA</u>	<u>RFP</u>	<u>GSA</u>
Clerk	P	120	30	120	30
	A	0	0	0	0
	R	0	0	0	0
Specialist	P	360	60	520	80
	A	240	40	240	40
	R	60	8	180	16
Section Chief	P	60	12	120	16
	A	0	0	0	0
	R	4	1	24	8
Total Hours		844	151	1204	190

C. Marginal Cost. Four different cost methods were used to calculate the marginal cost. These cost methods were described in the Methodology section of this report (VI.F). Refer to Appendix B for a cost calculation example. The marginal costs are listed in Table 5.

Table 5

MARGINAL COST BETWEEN RFP AND GSA ACQUISITIONS

<u>Cost Method</u>	<u>\$25K - \$100K</u>	<u>\$100K - \$300K</u>
Overall DACO Average	\$19,037	\$27,855
Branch Average	\$19,083	\$27,599
Grade Average	\$18,373	\$28,060
Branch and Grade Average	\$18,467	\$27,947

D. Costs not Considered. This study didn't associate a cost for the time delay between ordering an ADP item from the GSA schedule and soliciting ADP equipment via an RFP. This time delay, according to the branch chief of DACO-P, is at least 60 days and represents an unquantifiable productivity cost to the government. Also excluded was the cost associated with the time spent on a solicitation by other DLA organizations. Only DACO's time was considered by this study.

E. Sensitivity Analysis. The marginal cost is sensitive to the estimated number of hours, acceleration factor, fringe benefit factor, and salary rates. The marginal cost is linearly proportional to a change in these variables. For example, if any one of these variables increased by 10 percent then the marginal cost would also increase 10 percent. However, the marginal cost is not sensitive to the cost method used since there was very little difference (less than 3 percent) in marginal cost between the four methods employed as observed by the results shown in Table 5.

F. Future Estimates. The marginal cost can be updated by recalculating an average DACO salary. Anyone of the four cost methods may be used since the marginal cost isn't sensitive to the technique employed. The simplest technique is cost method 1, the overall DACO average (excluding branch chiefs and above).

G. Summary of Analysis. The work hours were obtained using a modified Delphi method. The hours were validated in two ways: (1) by comparing hours per week; and (2) by branch chief inspection. The marginal cost was calculated four ways with very little difference between the methods. The marginal costs, rounded to the nearest thousand, are \$19,000 and \$28,000 for acquisitions of \$25K to \$100K and \$100K to \$300K respectively. In addition, these marginal costs didn't consider the value of time waiting for an off-schedule procurement, and they also ignored other DLA organizations' times. Thus, conservative marginal costs were obtained.

APPENDIX A

Acquisition Activities

The following is a list of the activities (steps) observed in soliciting a contract. Also listed are the DACO branches which participate in the various activities for a given dollar range. Some steps are not performed depending on the type and cost of the ADP acquisition. Ordering from the GSA ADP schedule involves less than half of these steps, those marked with an "*." Note that some of the GSA steps don't seem appropriate, but they were matched up with their closest corresponding RFP steps. A detailed description of each activity can be obtained from DACO.

<u>ACTIVITY</u>	<u>DACO Branch</u>	
	<u>\$25-\$100K</u>	<u>\$100K-\$300K</u>
* FEDERAL DP CENTERS	A	A
* SHARING	A	A
* SOFTWARE EXCHANGE	A	A
* REUTILIZATION	A	A
* OTHER GOVERNMENT PROCUREMENTS	A	A
* ARMS EXCESS LIST	A	A
* COMPUTER PERFORMANCE EVALUATION	A	A
* ECONOMIC / ALTERNATIVE ANALYSIS	A	A
* COMMUNICATIONS STUDY	A	A
* CONVERSION STUDY	A	A
* MISSION ANALYSIS & REQUIREMENTS DOC	A	P A
* PRE-ACQUISITION DOCUMENTS TO DACO	A	A
* PRE-ACQUISITION REVIEW	P R	P R
* MARKET SURVEY	P A	P A
* JUSTIFICATION & AUTHORIZATION DOC	P A	P A
* PROJECT PLAN	P	P
* ACQUISITION PLAN	P A	P A
* COMPATIBILITY LIMITED DOCUMENT	P	P
* DETERMINATION & FINDINGS DOCUMENT	P	P
* REQUEST APR & RECEIVE DPA	P	P A
* FIPS PUBLICATIONS COMPLIANCE LIST	P	P A
EVALUATED OPTIONAL FEATURES	P	P A
OPTIONAL QUANTITIES	P A	P A
OPTIONS TO RENEW	P A	P A
SOW/SPECS/SECT. B,C,&M	P A	P A
* CONTRACT DATA REQUIREMENT LIST	P A	P A
* DATA ITEM DESCRIPTION (DD1664)	P A	P A
QUALIFICATIONS TEST	na	na
BEGIN OCD/BENCHMARK SPECIFICATIONS	na	na
BEGIN SOURCE SELECTION PLAN	na	na
BEGIN EVALUATION STANDARDS	na	na
ESTABLISH EVALUATION TEAM	na	A
BEGIN TECHNICAL EVALUATION PLAN	P	P A
DESIGNATE SELECTION AUTHORITY	na	na

ACTIVITY	DACO Branch	
	\$25-\$100K	\$100K-\$300K
* ACQUISITION PACKAGE TO DACO	P A	P A
* WRITE AND TRANSMIT SYNOPSIS	P A	P A
INDUSTRY REVIEW OF SPECS: 60 DAYS	na	P
PRE-SOL NOTICE & RESPONSE: 20 DAYS	na	na
PREPARE SOLICITATION AND BID LIST	P	P
COMPLETE EVALUATION STANDARDS	na	na
COMPLETE SOURCE SELECTION PLAN	na	na
REVIEW SECTION B & M	P A R	P A R
LEGAL REVIEW	P	P
RFP REVIEW COMMITTEE	P	P R
* CONTRACTING OFFICER REVIEW	P A	P A
DCORO REVIEW	na	na
APEC REVIEW	na	na
REVISE RFP	P	P A
SOURCE SELECTION PLAN APPROVAL	na	na
PRINT AND ISSUE RFP	P	P
PRE-PROPOSAL CONFERENCE: 1 DAY	na	A
CLOSE RFP	P	P
TECHNICAL EVALUATION & BENCHMARK	P A	P A
DCAA AUDIT / DCAS PRICING	na	na
* COST / PRICE ANALYSIS	P R	P R
PRENEGOTIATION BRIEFING	P A	P A R
DCORO STREAMLINE REVIEW	na	na
NEGOTIATIONS	P R	P A R
VENDOR COST RECONCILIATIONS	na	R
BAFO RECEIVED	P	P
BAFO TECHNICAL EVALUATION	A	A
BAFO COST / PRICE EVALUATION	P R	P R
* SELECTION EVALUATION	P	P A
REQUEST PRE-AWARD SURVEY	P	P
REQUEST EEO CLEARANCE	na	na
* PREPARE CONTRACT	P	P
RECEIVE PRE-AWARD SURVEY	na	na
CONTRACT REVIEW COMMITTEE	na	P R
LEGAL REVIEW	P	P
RECEIVE EEO CLEARANCE	na	na
ADDITIONAL DCORO REVIEW: 13 DAYS	na	na
CONTRACT REVISIONS	P	P
* SOURCE SELECTION APPROVAL	P	P
FINALIZE CONTRACT	P	P
NOTIFY CONGRESS	na	na
* AWARD	P	P
* PRINT CONTRACT	P	P
* MAIL CONTRACT	P	P
SYNOPSISIZE AWARD	na	na
DEBRIEF LOSING OFFERORS	P A	P A

Cost Calculation Example Using the DACO Average Method

I. General. The overall DACO average salary was obtained by using the salaries of personnel working during May 90. Vacancies were ignored. Only the salaries of section chiefs and below for each of the three DACO branches were used. This amounted to 48 employees. The average annual salary for these 48 employees was \$37,368.

II. Marginal Hours. The difference in number of hours between an RFP solicitation and a GSA order was determined from Table 4. In the \$25K to \$100K range, the numbers of hours spent by DACO on an RFP solicitation and a GSA order were 844 and 151 hours, respectively, making 693 marginal hours. For acquisitions in the 100 to 300 range, the number of hours were 1,204 and 190 for an RFP solicitation and GSA order, respectively, resulting in 1,014 marginal hours.

III. Marginal Costs. The marginal costs were obtained by converting the average annual salary to an hourly rate. This hourly rate was modified by the acceleration and fringe benefit factors; and finally, the modified hourly rate was multiplied by the marginal hours to come up with a marginal cost for each acquisition dollar range.

A. Hourly Pay Rate

$$\begin{array}{rcl} \$17.97/\text{hr} & = & \frac{\$37,368/\text{yr}}{2080 \text{ hrs/yr}} \end{array}$$

B. Modified Pay Rate

$$\begin{array}{rclclcl} \$27.47/\text{hr} & = & \$17.97/\text{hr} & * & (1.18) & * & (1.2955) \\ & & & & \text{Acceleration} & & \text{Fringe} \\ & & & & \text{Factor} & & \text{Benefit} \\ & & & & & & \text{Factor} \end{array}$$

C. Marginal Costs:

Acq Range	\$25K - \$100K	\$100K - \$300K
Marginal Hours	693	1014
Modified Pay Rate	$\times \frac{27.47}{1}$	$\times \frac{27.47}{1}$
Marginal Cost	\$19,037	\$27,855

IV. Other Cost Methods. The marginal costs using the other cost methods were obtained in similar fashions except an average annual salary was calculated for each branch and grade range. Then the marginal hours for each branch and grade range were multiplied by their corresponding marginal hours.

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13. ABSTRACT (Maximum 200 words) The Defense Logistics Agency Automated Data Processing (ADP) Contracting Office (DLA-DACO) is responsible for procuring ADP equipment which can be acquired in two ways: (1) through the General Services Administration (GSA) ADP schedule; or (2) off-schedule through normal solicitation channels by way of a request for proposal (RFP). ADP equipment ordered via RFP has an administrative cost added for comparison purposes to the vendor's quote that includes the additional quantifiable costs of going off-schedule. This is permitted under the Federal Information Resources Management Regulation and provides for a more realistic comparison between an off-schedule bid and the GSA schedule price. In December 1985, DACO estimated this marginal cost to be \$40,000 and has been adding this cost to vendor's bids for comparison purposes. On 16 February 1990 the GSA Board of Contract Appeals judged the \$40,000 amount to be excessive. This study was conducted to determine the marginal cost which accurately reflects the additional cost of soliciting via and RFP instead of ordering from the GSA ADP schedule. <i>Keywords,</i>				
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